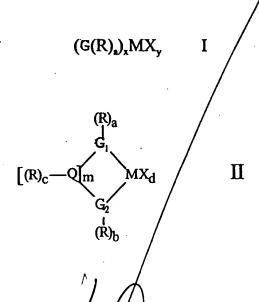
Please amend the following claims.

(amended twice) A polymerization catalyst component {for 1. polymerization of alpha-olefins, the catalyst } comprising a {cocatalyst and a catalyst component} metallocene complex and a support, wherein the {catalyst component} metallocene complex is supported on {a} the {porous inorganic solid} support, wherein the {catalyst component} metallocene complex is defined by formula I or II

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wherein:

R groups are equal to or different from each other; R is hydrogen or a radical containing from 1 to 20 carbon atoms; R optionally contains a heterdatem selected from the group consisting of elements from groups 14 through 16 of the periodic table of the elements and boron; at least one R group contains an OSiR", group, wherein R" As selected from the group consisting of: linear {or branched} C_1 - $\not c_{20}$ alkyl, branched C_1 - C_{20} alkyl, linear C_3 - C_{20} cycloalkyl, branched C_3 - C_{20} cycloalkyl, linear C_6 - C_{20} aryl,

branched C_6 - C_{20} aryl, linear C_7 - C_{20} a kenyl, branched C_7 - C_{20} alkenyl, linear C_7 - C_{20} arylalkyl, branched C_7 - C_{20} arylalkenyl, linear C_7 - C_{20} arylalkenyl, branched C_7 - C_{20} arylalkenyl, {and} linear C_7 - C_{20} alkylaryl, and branched C_7 - C_{20} alkylaryl;

Q is selected from the group consisting of: boron and elements from groups 14 and 16 of the periodic table; when m > 1, Q groups are equal to or different from each other; free valences of every Q are filled with the R group or groups according to a value of c; two R groups optionally are {united} bonded to form a ring having from 5 to 8 atoms; m ranges from 1 to 4;

{L} \underline{G} groups are equal to or different from each other; {L} \underline{G} is a cyclic organic group {united} bonded to M through a π bond, {L} \underline{G} contains a cyclopentadienyl ring that optionally is fused with one or more other rings, or {L} \underline{G} is an atom selected from the group consisting of elements from groups 15 and 16 of the periodic table;

 $\{L_1 \text{ and } L_2\}$ $\underline{G_1}$ and $\underline{G_2}$ are equal to or different from each other; $\{L_1 \text{ and } L_2\}$ $\underline{G_1}$ and $\underline{G_2}$ have the same meaning as $\{L\}$ \underline{G} ;

M is a metal selected from the group consisting of: elements from groups 3, 4, and 10 of the periodic table, lanthanides, and actinides;

X groups are equal to or different from each other; X is selected from the group consisting of: halogen, hydrogen, OR"', $N(R"')_2$, C_1 - C_{20} alkyl, and C_6 - C_{20} aryl; wherein R"' is selected from the group consisting of: linear (or branched) C_1 - C_{20} alkyl, branched C_1 - C_{20} alkyl, linear C_3 - C_{20} cycloalkyl, branched C_3 - C_{20} cycloalkyl, linear C_6 - C_{20} aryl, branched C_6 - C_{20} aryl, linear C_7 - C_{20} alkenyl, branched C_7 - C_{20} arylalkyl, linear C_7 - C_{20} arylalkyl, linear C_7 - C_{20} arylalkenyl, branched C_7 - C_{20} arylalkenyl, (and) linear C_7 - C_{20} alkylaryl, and branched C_7 - C_{20} alkylaryl;

x is 1 or 2, **y** is 2 or 3 in such a way that $\mathbf{x} + \mathbf{y} = 4$; **d** is an integer ranging from 0 to 2; and **a**, **b** and **c** are integers from 0 to 10 in such a way that $\mathbf{a} + \mathbf{b} + \mathbf{c} \ge 1$; wherein the metallocene complex is supported on the support by means of a bond resulting from a reaction of the OSiR"₃ group of the metallocene complex with a reactive group on a surface of the support; and wherein the OSiR"₃ group is not directly bonded to Q when Q is Si.

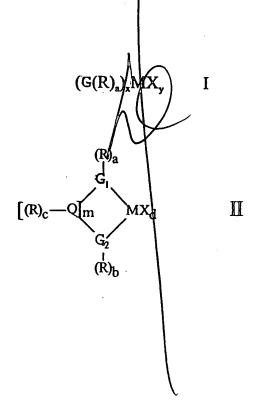
- 2. (amended twice) A catalyst domponent according to claim 1 wherein in formula I or II R is selected from the group consisting of: hydrogen, SiR'3, linear {or branched} C_1 - C_{20} alkyl, branched C_1 - C_{20} alkyl, linear C_3 - C_{20} cycloalkyl, branched C_3 - C_{20} cycloalkyl, linear C_6 - C_{20} aryl, branched C_6 - C_{20} aryl, linear C_7 - C_{20} alkenyl, branched C_7 - C_{20} alkenyl, linear C_7 - C_{20} arylalkyl, branched C_7 - C_{20} arylalkyl, linear C_7 - C_{20} arylalkenyl, branched C_7 - C_{20} arylalkenyl, and branched C_7 - C_{20} alkylaryl; {at least one R group contains an OSiR"3 group, wherein R" is selected from the group consisting of: linear or branched C_1 - C_{20} alkyl, C_3 - C_{20} cycloalkyl, C_6 - C_{20} aryl, C_7 - C_{20} alkenyl, C_7 - C_{20} arylalkenyl, and C_7 - C_7 alkylaryl; and optionally {all} each {the} R {groups} group {contains a {heteroatoms} heteroatom selected from the group consisting of: elements of groups 14 through 16 of the previous table of the elements and boron.
- 3. (amended three times) A catalyst <u>component</u> according to claim 1 wherein in formula I or II M is selected from the group consisting of: Ti Zr, and Hf.
- 4. (amended three times) A catalyst component according to

- 5. (amended three times) A catalyst <u>component</u> according to claim 1 wherein in formula I {L} \underline{G} is cyclopentadienyl or indenyl; M is zirconium; \mathbf{x} is 2; \mathbf{y} is 2; R is C_1 - C_4 alkyl, wherein at least one hydrogen of one R is substituted with $OSiR''_3$ wherein R'' is selected from the group consisting of: Me, Et, and Pr.
- 6. (amended three times) A catalyst <u>component</u> according to claim {1} $\underline{2}$ wherein in formula II, M is zirconium; {L₁ and L₂} $\underline{G_1}$ and $\underline{G_2}$ are cyclopentadienyl or indenyl; R is hydrogen, a C₁-C₄ alkyl wherein at least one hydrogen of one R is substituted with OSiR"₃ or a SiR'₂-OSiR"₃ group, wherein R" is selected from the group consisting of: methyl, ethyl, propyl; [(R)_CQ]_m is H₂C-CH₂, CRH-CH₂, RHC-SiR'₂, R₂C-SiR'₂, and SiRR'.
- 7. (amended three chmes) A catalyst <u>component</u> according to claim {1} $\underline{2}$ wherein in formula II, M is titanium; {L₂} $\underline{G_2}$ is an oxygen or a nitrogen atom; {L₁} $\underline{G_1}$ is a cyclopentadienyl, indenyl or fluorenyl ring; [(R)_CQ]_m is H₂C-CH₂, CRH-CH₂, RHC-SiR'₂, R₂C-SiR'₂, or SiRR'.
- 8. (amended three times) A {Solid} polymerization catalyst comprising a cocatalyst and a catalyst component {according to} as claimed in claim 1{ characterized in that catalyst component of formula I or II is supported on a porous inorganic solid}.

9. (amended twice) A catalyst <u>component</u> according to claim 1 wherein the {porous} <u>support comprises an</u> inorganic solid {is} selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.

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- 10. (amended three times) A process for preparing a polymerization catalyst component, the catalyst component comprising a metallocene complex and a support, wherein the metallocene complex is supported on the support, wherein the {according to claim 1 comprising} process comprises the following steps:
 - (a) impregnation, under anhydrous conditions and an inert atmosphere at a temperature between -20°C and 90°C, of a solution {of} comprising at least one {catalyst component} metallocene complex on the support, wherein the metallocene complex is defined by formula I or II



wherein:

R groups are equal to or different from each other; R is hydrogen or a radical containing from 1 to 20 carbon atoms; R optionally contains a heteroatom selected from the group consisting of elements from groups 11 through 16 of the periodic table of the elements and boron; at least one R group contains an OSiR"3 group, wherein R" is selected from the group consisting of: linear C_1 - C_{20} alkyl, branched C_1 - C_{20} alkyl, linear C_3 - C_{20} cycloalkyl, branched C_3 - C_{20} cycloalkyl, linear C_6 - C_{20} aryl, branched C_6 - C_{20} aryl, linear C_7 - C_{20} alkenyl, branched C_7 - C_{20} alkenyl, linear C_7 - C_{20} arylalkyl, branched C_7 - C_{20} arylalkyl, linear C_7 - C_{20} arylalkenyl, linear C_7 - C_{20} arylalkenyl, linear C_7 - C_{20} arylalkenyl, and branched C_7 - C_{20} alkylaryl;

O is selected from the group consisting of: boron and elements from groups 14 and 16 of the periodic table; when m > 1, O groups are equal to or different from each other; free valences of every O are filled with the R group or groups according to a value of c; two R groups optionally are bonded to form a ring having from 5 to 8 atoms; m ranges from 1 to 4;

G groups are equal to or different from each other; G is a cyclic organic group bonded to M through a π bond, G contains a cyclopentadienyl ring that optionally is fused with one or more other rings, or G is an atom selected from the group consisting of elements from groups 15 and 16 of the periodic table;

 G_1 and G_2 are exhalts or different from each other; G_1 and G_2 have the same meaning as G:

M is a metal selected from the group consisting of: elements from groups 3, 4, and 10 of the periodic table, lanthanides, and actinides;

X groups are equal to or different from each other; X is selected from the group consisting of: halogen, hydrogen, OR"',

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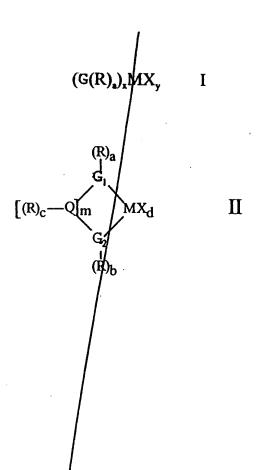
 $N(R"')_2$, C_1 - C_{20} alkyl, and C_6 - C_{20} aryl; wherein R"' is selected from the group consisting of: linear C_1 - C_{20} alkyl, branched C_1 - C_{20} alkyl, linear C_3 - C_{20} cycloalkyl, branched C_3 - C_{20} cycloalkyl, linear C_6 - C_{20} aryl, branched C_6 - C_{20} aryl, linear C_7 - C_{20} alkenyl, branched C_7 - C_{20} alkenyl, linear C_7 - C_{20} arylalkyl, branched C_7 - C_{20} arylalkenyl, linear C_7 - C_{20} arylalkenyl, linear C_7 - C_{20} alkylaryl, and branched C_7 - C_{20} alkylaryl;

x is 1 or 2, **y** is 2 or 3 in such a way that $\mathbf{x} + \mathbf{y} = 4$; **d** is an integer ranging from 0 to 2; and **a**, **b** and **c** are integers from 0 to 10 in such a way that $\mathbf{a} + \mathbf{b} + \mathbf{c} \ge 1$;

{on on a support at a temperature between -20°C and 90°C;} wherein the OSiR"₃ group of the metallocene complex reacts with a reactive group of the support to bond the metallocene complex to the support, thereby forming a resulting solid comprising the metallocene complex supported on the support; and

- (b) filtration and washing the resulting solid from step (a) with a solvent selected from the group consisting of aliphatic hydrocarbons and aromatic hydrocarbons.
- 11. (amended three times) A process for preparing a polymerization catalyst component, the catalyst component comprising a metallocene complex and a support, wherein the metallocene complex is supported on the support, wherein the {according to claim | comprising} process comprises the following steps:
 - (a) depositing at least one {catalyst component defined by formula I or II} metallocene complex on {a} the support by using a solution {of} comprising a solvent and the {catalyst component} metallocene complex to heterogenize, wherein the metallocene complex is defined by formula I or II

(1)/



wherein:

R groups are equal to or different from each other; R is hydrogen or a radical containing from 1 to 20 carbon atoms; R optionally contains a heteroatom selected from the group consisting of elements from groups 14 through 16 of the periodic table of the elements and boron; at least one R group contains an OSiR" $_3$ group, wherein R' is selected from the group consisting of: linear C_1 - C_{20} alkyl, branched C_1 - C_{20} alkyl, linear C_3 - C_{20} cycloalkyl, branched C_3 - C_{20} cycloalkyl, linear C_5 - C_{20} aryl, branched C_6 - C_{20} aryl, branched C_6 - C_{20} arylalkyl, linear C_7 - C_{20} arylalkenyl, linear C_7 - C_{20} alkylaryl, and branched

C_7-C_{20} alkylaryl:

O is selected from the group consisting of: boron and elements from groups 14 and 16 of the periodic table; when m > 1, O groups are equal to or different from each other; free valences of every O are filled with the R group or groups according to a value of c; two R groups optionally are bonded to form a ring having from 5 to 8 atoms; m ranges from 1 to 4;

G groups are equal to or different from each other; G is a cyclic organic group bonded to M through a π bond, G contains a cyclopentadienyl ring that optionally is fused with one or more other rings, or G is an atom selected from the group consisting of elements from groups 15 and 16 of the periodic table;

 G_1 and G_2 are equal to or different from each other; G_1 and G_2 have the same meaning as G_2

M is a metal selected from the group consisting of: elements from groups 3, 4, and 10 of the periodic table, lanthanides, and actinides;

X groups are equal to or different from each other; X is selected from the group consisting of: halogen, hydrogen, OR"', $N(R"')_2$, C_1 - C_{20} alkyl, and C_6 - C_{20} aryl; wherein R"' is selected from the group consisting of: linear C_1 - C_{20} alkyl, branched C_1 - C_{20} alkyl, linear C_3 - C_{20} cycloalkyl, branched C_3 - C_{20} cycloalkyl, linear C_6 - C_{20} aryl, branched C_6 - C_{20} aryl, linear C_7 - C_{20} alkenyl, branched C_7 - C_{20} alkenyl, linear C_7 - C_{20} arylalkyl, branched C_7 - C_{20} arylalkenyl, linear C_7 - C_{20} alkylaryl, and branched C_7 - C_{20} alkylaryl, and branched C_7 - C_{20} alkylaryl,

x is 1 or 2, **y** is 2 or 3 in such a way that $\mathbf{x} + \mathbf{y} = 4$; **d** is an integer ranging from $(\mathbf{x} + \mathbf{y}) + \mathbf{z} = 4$; from 0 to 10 in such a way that $\mathbf{a} + \mathbf{b} + \mathbf{c} \geq 1$; wherein the $(\mathbf{0} + \mathbf{k}) + \mathbf{c} = \mathbf{k} + \mathbf{c} = 1$; wherein the $(\mathbf{0} + \mathbf{k}) + \mathbf{c} = \mathbf{c} + \mathbf{c} = 1$; wherein the $(\mathbf{0} + \mathbf{k}) + \mathbf{c} = 1$; wherein the $(\mathbf{0} + \mathbf{k}) + \mathbf{c} = 1$; wherein the $(\mathbf{0} + \mathbf{k}) + \mathbf{c} = 1$; wherein the $(\mathbf{0} + \mathbf{k}) + \mathbf{c} = 1$; wherein the $(\mathbf{0} + \mathbf{k}) + \mathbf{c} = 1$; wherein the $(\mathbf{0} + \mathbf{k}) + \mathbf{c} = 1$; wherein the $(\mathbf{0} + \mathbf{k}) + \mathbf{c} = 1$; wherein the $(\mathbf{0} + \mathbf{k}) + \mathbf{c} = 1$; wherein the $(\mathbf{0} + \mathbf{k}) + \mathbf{c} = 1$; wherein the $(\mathbf{0} + \mathbf{k}) + \mathbf{c} = 1$; wherein the $(\mathbf{0} + \mathbf{k}) + \mathbf{c} = 1$; where $(\mathbf{0} + \mathbf{k})$



metallocene complex supported on the support;

- (b) eliminating the solvent {through evaporation to yield a solid residue}; and
- (c) {warming} bringing the resulting solid {residue up} to a temperature between 25 and 150°C.

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12. (amended three times) A process as claimed in Claim 10, wherein before step (a) the {catalyst component} metallocene complex is mixed with a cocatalyst.

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14. (amended three times) A catalyst according to claim $\{1\}$ 8 wherein the cocatalyst is selected from the group consisting of: an alkylaluminoxane, boron compounds, and mixtures thereof.

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- 19. (amended once) A process as claimed in Claim 11, wherein before step (a) the {catalyst component} metallocene complex is mixed with a cocatalyst.
- 20. (amended once) A process for preparing a polymer, the process comprising contacting the catalyst component {as} claimed in Claim 1 with a monomer to polymerize the monomer and to produce the polymer{, wherein the catalyst is for the polymerization of alpha-olefins in solution, in suspension, in gas phase at low and high pressure and temperature or in mass at high pressures and high or low temperatures; and wherein the catalyst component is a metallocene complex}.

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23. (amended once) A catalyst according to claim 2, wherein the support comprises an inorganic solid selected from the group

consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.

- 24. (amended once) A catalyst according to claim 4, wherein the support comprises an inorganic solid selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.
- 25. (amended once) A catalyst according to claim 5, wherein the support comprises an inorganic solid selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.
- 26. (amended once A catalyst according to claim 6, wherein the support comprises an inorganic solid selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.

Please add the following new claims.

--27. A process as claimed in claim 10 wherein in formula I or II R is selected from the group consisting of: hydrogen, SiR'_3 , linear C_1 - C_{20} alkyl, branched C_1 - C_{20} alkyl, linear C_3 - C_{20} cycloalkyl, branched C_3 - C_{20} cycloalkyl, linear C_6 - C_{20} aryl, branched C_6 - C_{20} aryl, linear C_7 - C_{20} alkenyl, branched C_7 - C_{20} alkenyl, linear C_7 - C_{20} arylalkyl, linear C_7 - C_{20} arylalkenyl, branched C_7 - C_{20} arylalkenyl, linear C_7 - C_{20} alkylaryl; and branched C_7 - C_{20} alkylaryl; and optionally each R group contains a heteroatom selected from the group consisting of: elements of groups 14 through 16 of the periodic table of the elements and boron.



- 28. A process according to claim 10 wherein in formula I or II M is selected from the group consisting of: Ti, Zr, and Hf.
- 29. A process according to claim 10 wherein in formula I or II the R group containing the group OSiR" is selected from the group consisting of: $-CH_2-CH_2-OSiMe_3$, $-CH_2-CH_2-CH_2-OSiMe_3$, $-CH_2-CH_2-OSiMe_3$, $-CH_2-CH_2-OSiMe_3$.
- 30. A process according to claim 10 wherein in formula I L is cyclopentadienyl or indenyl; M is zirconium; \mathbf{x} is 2; \mathbf{y} is 2; R is C_1-C_4 alkyl, wherein at least one hydrogen of one R is substituted with $OSiR''_3$ wherein R'' is selected from the group consisting of: Me, Et, and Pr.
- 31. A process according to claim 27 wherein in formula II, M is zirconium; G_1 and G_2 are cyclopentadienyl or indenyl; R is hydrogen, a C_1 - C_4 alkyl wherein at least one hydrogen of one R is substituted with $OSiR''_3$ or a SiR'_2 - $OSiR''_3$ group, wherein R" is selected from the group consisting of: methyl, ethyl, propyl; $[(R)_cQ]_m$ is H_2C - CH_2 , CRH- CH_2 , RHC- SiR'_2 , R_2C - SiR'_2 , and SiRR'.
- 32. A process according to claim 10 wherein in formula II, M is titanium; G_2 is an oxygen or a nitrogen atom; G_1 is a cyclopentadienyl, indenyl or fluorenyl ring; $[(R)_cQ]_m$ is H_2C-CH_2 , $CRH-CH_2$, $RHC-SiR'_2$, $R_2C-SiR'_2$, or SiRR'.
- 33. A process according to claim 12 wherein the cocatalyst is selected from the group consisting of: an alkylaluminoxane, boron compounds, and mixtures thereof.
- 34. A process according to claim 10, wherein the support comprises an inorganic solid selected from the group consisting

- of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof
- 35. A process according to claim 27, wherein the support comprises an inorganic solid selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.
- 36. A process as claimed in claim 11 wherein in formula I or II R is selected from the group consisting of: hydrogen, SiR'_3 , linear C_1 - C_{20} alkyl, branched C_1 - C_{20} alkyl, linear C_3 - C_{20} cycloalkyl, branched C_3 - C_{20} cycloalkyl, linear C_6 - C_{20} aryl, branched C_6 - C_{20} aryl, linear C_7 - C_{20} alkenyl, branched C_7 - C_{20} alkenyl, linear C_7 - C_{20} arylalkyl, linear C_7 - C_{20} arylalkenyl, branched C_7 - C_{20} arylalkenyl, linear C_7 - C_{20} arylalkenyl, and branched C_7 - C_{20} alkylaryl; and optionally each R group contains a heteroatom selected from the group consisting of: elements of groups 14 through 16 of the periodic table of the elements and boron.
- 37. A process according to claim 11 wherein in formula I or II M is selected from the group consisting of: Ti, Zr, and Hf.
- 38. A process according to claim 11 wherein in formula I or II the R group containing the group OSiR" is selected from the group consisting of: $-CH_2-CH_2-OSiMe_3$, $-CH_2-CH_2-OSiMe_3$, $-CH_2-CH_2-OSiMe_3$, $-CH_2-CH_2-OSiMe_3$.
- 39. A process according to claim 11 wherein in formula I L is cyclopentadienyl or indenyl; M is zinconium; \mathbf{x} is 2; \mathbf{y} is 2; R is C_1-C_4 alkyl, wherein at least one hydrogen of one R is substituted with $OSiR''_3$ wherein R" is selected from the group consisting of: Me, Et, and Pr.

- 40. A process according to claim 36 wherein in formula II, M is zirconium; G_1 and G_2 are cyclopentadienyl or indenyl; R is hydrogen, a C_1 - C_4 alkyl wherein at least one hydrogen of one R is substituted with $OSiR''_3$ or a SiR'_2 - $OSiR''_3$ group, wherein R" is selected from the group consisting of: methyl, ethyl, propyl; $[(R)_cQ]_m$ is H_2C - CH_2 , CRH- CH_2 , RHC- SiR'_2 , R_2C - SiR'_2 , and SiRR'.
- 41. A process according to claim 11 wherein in formula II, M is titanium; G_2 is an oxygen or a nitrogen atom; G_1 is a cyclopentadienyl, indenyl or fluorenyl ring; $[(R)_cQ]_m$ is H_2C-CH_2 , $CRH-CH_2$, $RHC-SiR'_2$, $R_2C-SiR'_2$, or SiRR'.
- 42. A process according to claim 19 wherein the cocatalyst is selected from the group consisting of: an alkylaluminoxane, boron compounds, and mixtures thereof.
- 43. A process according to claim 11, wherein the support comprises an inorganic solid selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.
- 44. A process according to claim 36, wherein the support comprises a porous inorganic solid, and wherein the porous inorganic solid is an inorganic oxide selected from the group consisting of: silica, alumina, silica-alumina, aluminum phosphates, and mixtures thereof.
- 45. A process as claimed in claim 11, wherein in step (b) the solvent is eliminated through evaporation.
- 46. A process for preparing a copolymer, the process comprising contacting the catalyst component claimed in Claim 1 with a

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monomer and a copolymer to copolymerize the monomer and the comonomer and to produce the copolymer.

- 47. A process as claimed in claim 46, wherein the comonomer is an alpha-olefin selected from the group consisting of propylene, butene, hexene, octene, and 4-methyl-1-pentene.
- 48. A process as claimed in claim 46, wherein the monomer comprises ethylene.
- 49. A process as claimed in claim 47, wherein the monomer comprises ethylene.
- 50. A process as claimed in claim 20, wherein the monomer comprises ethylene.
- 51. A process as claimed in claim 20, wherein the polymerization occurs at a temperature between 30°C and 100°C. or at a temperature between 120°C and 250°C.
- 52. A process as claimed in claim 20, wherein the polymerization occurs at a pressure in a range from atmospheric pressure to 350 MPa.
- 53. A process as claimed in claim 20, wherein the polymerization occurs in a solution, in a suspension, in a gas phase, or in a mass.
- 54. A process as claimed in claim 10, wherein in the metallocene complex the OSiH"₃ group is not directly bonded to Q when Q is Si.
- 55. A process as claimed in claim 11, wherein in the metallocene complex the OSiR"₃ group is not directly bonded to Q when Q is Si.